



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Selifonov et al.

Application No.: 09/495,668

Filed: February 1, 2000

Title: METHODS OF POPULATING DATA
STRUCTURES FOR USE IN
EVOLUTIONARY SIMULATIONS

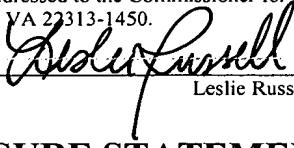
Attorney Docket No.:
MXGNP002X1/0159.210

Examiner: Kim J. Young

Group: 1631

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as priority mail on January 9, 2004 in an envelope addressed to the Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450.

Signed: 

Leslie Russell

**INFORMATION DISCLOSURE STATEMENT
37 CFR §§1.56 AND 1.97(b)**

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The references listed in the attached PTO Form 1449, copies of which are attached, may be material to examination of the above-identified patent application. Applicants submit these references in compliance with their duty of disclosure pursuant to 37 CFR §§1.56 and 1.97. The Examiner is requested to make these references of official record in this application.

This Information Disclosure Statement is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that these references indeed constitute prior art.

This Information Disclosure Statement is: (i) filed within three (3) months of the filing date of the above-referenced application, (ii) believed to be filed before the mailing date of a first Office Action on the merits, or (iii) believed to be filed before the mailing of a first Office Action after the filing of a Request for Continued Examination under §1.114. Accordingly, it is believed that no fees are due in connection with the filing of this Information Disclosure Statement. However, if it is determined that any fees are due, the Commissioner is hereby authorized to charge such fees to Deposit Account 500388 (Order No. MXGNP002X1).

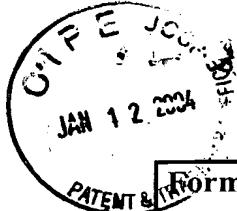
Respectfully submitted,

BEYER WEAVER & THOMAS, LLP



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**Form 1449 (Modified)****Information Disclosure
Statement By Applicant**

(Use Several Sheets if Necessary)

Atty Docket No.
MXGNP002X1/0159.210US
Applicant:
Selifonov et al.
Filing Date
February 1, 2000

Application No.:
09/495,668

Group
1637

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Other Documents

| Examiner Initial | No. | Author, Title, Date, Place (e.g. Journal) of Publication |
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| | C2 | Hellberg et al., "The Prediction of Bradykinin Potentiating Potency of Pentapeptides. An Example of a Peptide Quantitative Structure-Activity Relationship," <i>Acta Chemica Scandinavica B</i> 40, pp. 135-140, 1988 |
| | C3 | Bucht et al., "Optimising the Signal Peptide for Glycosyl Phosphatidylinositol Modification of Human Acetylcholinesterase Using Mutational Analysis and Peptide-Quantitative Structure-Activity Relationships," <i>Biochimica et Biophysica Acta</i> 1431, pp. 471-482, 1999 |
| | C4 | Sandberg et al., "Engineering Multiple Properties of a Protein by Combinatorial Mutagenesis," <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 90, pp. 8367-8371, September 1993 |
| | C5 | Wrede et al., "Peptide Design Aided by Neural Networks: Biological Activity of Artificial Signal Peptidase I Cleavage Sites," <i>Biochemistry</i> , 37, pp. 3588-3593, 1998 |
| | C6 | Jill Damborsky, "Quantitative Structure-Function and Structure-Stability Relationships of Purposely Modified Proteins," <i>Protein Engineering</i> , Vol. 11, no. 1, pp. 21-30, 1998 |
| | C7 | Hellberg, et al., "Peptide Quantitative Structure-Activity Relationships, a Multivariate Approach," <i>J. Med Chem</i> , 30: pp 1126-1195, 1987 |
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| | C9 | Casari et al., "A Method to Predict Functional Residues in Proteins," <i>Nat. Struct Biol.</i> , 2, pp. 171-178, 1995 |
| | C10 | Gogos et al., "Assignment of Enzyme Substrate Specificity by Principal Component Analysis of Aligned Protein Sequences: An Experimental Test Using DNA Glycosylase Homologs," <i>Proteins: Structure, Function, and Genetics</i> , 40, pp. 98-105, 2000 |
| | C11 | Suzuki et al., "A Method for Detecting Positive Selection at Single Amino Acid Sites," <i>Mol. Biol. Evol.</i> 16 (10): pp. 1315-1328, 1999 |
| | C12 | Benner et al., "Amino Acid Substitution During Functionally Constrained Divergent Evolution of Protein Sequences," <i>Protein Engineering</i> , Vol. 7, No. 11, pp. 1323-1332, 1994 |

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| Form 1449 (Modified) Information Disclosure Statement By Applicant (Use Several Sheets if Necessary) | Atty Docket No. MXGNP002X1/0159.210US | Application No.: 09/495,668 JAN 14 2004 |
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| Applicant: Selifonov et al. | Filing Date February 1, 2000 | Group 1637 |
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| C21 | Aita et al., "Theory of Evolutionary Molecular Engineering Through Simultaneous Accumulation of Advantageous Mutations," J. Theor. Biol., 207, pp/ 543-556, 2000 |
| C22 | Lathrop et al., "Global Optimum Protein Threading with Gapped Alignment and Empirical Pair Score Functions," J. Mol. Biol., 255, pp. 641-665, 1996 |
| C23 | Hellberg et al., "A Multivariate Approach to QSAR," Ph.D. Thesis, Umea, Sweden: University of Umea: 1986 |
| C24 | "Vector NTI Suite 7.0 User's Manual (portion) describing software believed to be available prior to February 1, 2000 |
| Examiner | Date Considered |

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.